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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/493,188	01/28/2000	Hidehiro Ishii	P7156-9071	1906

4372 7590 08/16/2004

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EXAMINER

PATEL, GAUTAM

ART UNIT	PAPER NUMBER
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2655

DATE MAILED: 08/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/493,188

Applicant(s)

ISHII ET AL.

Examiner

Gautam R. Patel

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-71 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-71 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment:

1. This is in response to amendment filed on 5-5-04 and 5-6-04 (Paper # 20 and 21).
2. Claims 7-71 remain for examination. Claims 62-71 are newly presented for examination.

Drawings/Objection

3. The drawings are objected for following reasons:

The drawings are objected to under 37 C.F.R. § 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “an object data recording zine” must be shown or the feature cancelled from the claim. **No new matter should be entered.**

On Applicant is required to submit a proposed drawing correction in response to this Office Action. Any proposal by the applicant for amendment of the drawings to cure defects must consist of following:

Drawing changes must be made by presenting replacement figures which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments, or remarks, section of the amendment, and may be ***accompanied by a marked-up copy of one or more of the figures being amended, with annotations.*** Any replacement drawing sheet ***must be identified in the top margin as “Replacement Sheet”*** and include all of the figures appearing on the immediate prior version of the sheet, even though only one figure may be amended. ***Any marked-up (annotated) copy showing changes must be labeled “Annotated Marked-up Drawings” and accompany the replacement sheet in the amendment (e.g., as an appendix).***

Correction is required.

Specification Objected

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4. The amendment filed on 5-5-04 and 5-6-04 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the concept of an object data recording zone has not been disclosed at all.

Applicant is required to **cancel the new matter** in the reply to this Office Action.

Claim Rejections - 35 U.S.C. § 112

5. The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 7-71 are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Page 17-18, last and first paragraph simply states that "data comprising the video pack and video object unit". The specification does not disclose at all that "the object data recording zone exist at all". Similarly there is not management data recording zone.

NOTE: For examination purposes it is assumed that the Applicants are referring to audio data storage area and control area [management area].

Claim Rejections - 35 U.S.C. § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 23-30, and 39-46 are rejected under 35 U.S.C. § 102(e) as being anticipated by Aoki et al., US. patent 6,243,220 (hereafter Aoki).

As to claim 23, Aoki discloses the invention as claimed [see Figs. 1-9 especially 1A, 1B, 3B and 4B] including a reading device, a first recording area, a second recording area and control information indicating audio data intermingled from different recording modes, comprising:

a reading device [fig. 1B, unit 20] which reads the control information from the second recording area of recording medium [col. 5, lines 11-40], and

a controller [fig. 1B, unit 28] which controls the reproduction of the audio data recorded on the first recording area of the medium based on the control information [col. 5, lines 11-40].

NOTE: Aoki discloses audio data intermingled from different modes [for example monaural, two-language/multi-language, stereo etc.] [see col. 4, lines 39-41]. Also Aoki clearly discloses audio data which is intermingled from different recording modes. Aoki uses words “**a combination thereof**” to describe that not only he has different audio modes but also combination or intermingled mode of these data. Also all this information about encoded intermingled data is supplied to signal input 6, and this is called “audio mode control signal”. Audio mode information contains the **audio mode identification information** [see col. 3, lines 45-46].

First recording area and second recording area are located in completely different area. Also an “area discrimination bit” [see figs. 3B and 3C] is used by Aoki to emphasis this point.

7. As to claim 24, Aoki discloses:

the recording modes include monaural audio, multi-channel audio and multiplexed [two-language/multi-language] audio [col. 4, lines 35-43 and col. 7, lines 8-16].

8. As to claim 25, Aoki discloses:

the audio stream contains multiplexed audio data [col. 4, lines 35-43 and col. 7, lines 8-16].

9. As to claim 26, Aoki discloses:

the multiplexed audio data consists of a plurality of audio channels and contains multiple language data in different audio channels [col. 4, lines 35-43 and col. 7, lines 8-16],

the system further comprising operating device [fig. 1B, units 24 and 28] for selecting one of the multiple language data, wherein the controller controls the reproduction of the audio data such that only the selected [audio selection switch] one of the multiple language data is reproduced [col. 3, lines 15-25 and col. 5, lines 18-40].

10. As to claim 27, Aoki discloses:

the audio stream further contains multi-channel audio data, and
wherein the application information indicates that the audio stream contains the audio data with different recording modes [col. 4, lines 35-43 and col. 7, lines 8-16]

11. As to claim 28, Aoki discloses:

the control information further includes number information indicating a number of audio channels in the audio stream [col. 5, lines 56 to col. 6, line 3].

NOTE: Since each audio channel is identified individually, and where data is recorded, information indicating number of channels for that mode is inherently present. For example stereo 2-channels would have two channels and stereo 4-channels would have four channels. This information is inherently needed to assign the channels and wires necessary to transmit and record the information.

12. As to claim 29, Aoki discloses:

the control information further includes number information specifying one of the recording modes [col. 5, lines 11-40].

13. As to claim 30, Aoki discloses:
the control information further includes rate information [sampling frequency]
indicating a bit rate of the audio data [col. 4, lines 44-61 and col. 5, lines 56-63].
14. As to claim 39, it is drawn to a method claim corresponding to the apparatus
claim of claim 23, is rejected for similar reasons set forth in the rejection of claim
23, supra.
15. As to claim 40, Aoki discloses:
the recording modes include monaural audio, multi-channel audio and
multiplexed [two-language/multi-language] audio [col. 4, lines 35-43 and col. 7, lines 8-
16].
16. As to claim 41, Aoki discloses:
the audio stream contains multiplexed audio data [col. 4, lines 35-43 and col. 7,
lines 8-16].
17. As to claim 42, Aoki discloses:
the multiplexed audio data consists of a plurality of audio channels and contains
multiple language data in different audio channels [col. 4, lines 35-43 and col. 7, lines 8-
16].
the method further comprising the step of selecting one of [fig. 1B, units 24 and
28] the multiple language data, wherein the step of controlling the reproduction controls
the reproduction of the audio data such that only the selected [audio selection switch]
one of the multiple language data is reproduced [col. 3, lines 15-25 and col. 5, lines 18-
40].
18. As to claim 43, Aoki discloses:

the audio stream further contains multi-channel audio data, and wherein the application information indicates that the audio stream contains the audio data with different recording modes [col. 4, lines 35-43 and col. 7, lines 8-16]

19. As to claim 44, Aoki discloses:

the control information further includes number information indicating a number of audio channels in the audio stream [col. 5, lines 56 to col 6, line 3].

NOTE: Since each audio channel is identified individually, and where data is recorded, information indicating number of channels for that mode is inherently present. For example stereo 2-channels would have two channels and stereo 4-channels would have four channels. This information is inherently needed to assign the channels and wires necessary to transmit and record the information.

20. As to claim 45, Aoki discloses:

the control information further includes number information specifying one of the recording modes [col. 5, lines 11-40].

21. As to claim 46, Aoki discloses:

the control information further includes rate information [sampling frequency] indicating a bit rate of the audio data [col. 4, lines 44-61 and col. 5, lines 56-63].

NOTE: Aoki discloses all of the above elements, including plurality of recording areas and addresses on a storage medium. Aoki is silent about the type of storage [such as circular]. That if the storage medium is an optical information recording medium of circular shape as recited in the preamble. However, the preamble is not given the effect of a limitation unless it breathes life and meaning into the claim. In order to limit the claim, the preamble must be "essential to point out the invention defined by the claim." *Kropa v. Robie*, 88 USPQ 478, 481 (CCPA 1951). Therefore preamble is considered non-limiting, and is not given patentable weight, as it does not breath life and meaning into the claim [M.P.E.P. 2111.02].

Claim Rejections - 35 U.S.C. § 103

22. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

23. Claims 7-22 and 31-38 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Aoki in view of Yagi, US. patent 6,253,021 (hereafter Yagi).

As to claim 7, Aoki discloses the invention as claimed [see Figs. 1-9 especially 1A, 1B, 3B and 4B] including a first recording area, a second recording area and control information indicating audio data intermingled from different recording modes, comprising:

a first recording area [fig. 2, Audio signal area A & B] on which an audio stream containing audio data is recorded [col. 4, lines 5-10 and col. 15, lines 26-30]; and

a second recording area [fig. 3B & 3C, AUDIO MODE CONTROL SIGNAL area] on which control information [signals b1-b6] is recorded [col. 6, lines 4-44 and col. 15, lines 26-30], the second recording area [AUDIO MODE CONTROL SIGNAL area] located in different position from the first recording area [col. 6, lines 7-17]

wherein the control information includes application information indicating whether or not the audio stream contains audio data intermingled [a combination thereof] from different recording modes [col. 4, lines 35-43 and col. 7, lines 6-16].

NOTE: Aoki discloses audio data intermingled from different modes [for example monaural, two-language/multi-language, stereo etc.] [see col. 4, lines 39-41]. Also Aoki clearly discloses audio data which is intermingled from different recording modes. Aoki uses words "**a combination thereof**" to describe that not only he has different audio modes but also combination or intermingled mode of these data. Also all this information about encoded intermingled data is supplied to signal input 6, and this is called "audio mode control signal". Audio mode information contains the **audio mode identification information** [see col. 3, lines 45-46].

First recording area and second recording area are located in completely different area. Also an "area discrimination bit" [see figs. 3B and 3C] is used by Aoki to emphasize this point.

Aoki discloses all of above elements including different areas for storage of data and control information and recording medium to store these data in mixed mode [indicated by "a combination thereof" at col. 4, lines 41]. Aoki does not specifically disclose type of data storage [such as disc] that can be used in his system.

However, it is very well known in the art that all kind of data including audio and video data are being stored on the disc for a long time. Also Yagi clearly discloses:

An audio data recording area [object data recording zone] and a management data recording zone [control information area [col. 10, line 61 to col. 11, line 35 and fig. 3A-3B]. Both Aoki and Yagi are interested in improving the storage of the audio signal, both shows different audio modes and both shows different channels for recording and bits indicating different channels and different areas for storage.

Therefore, it would have been obvious to provide the system of Aoki with data recording on a circular disc and associated details such as recording data in different zones that are diagonally apart [normal arrangement on a circular disc] as taught by Yagi. The application or use of the circular disc as taught by Yagi would have been obvious, because the optical disc performs the same function in the same way as the decoder [or audio mode processing circuit details] of Aoki's system, and is an equivalent element. One of ordinary skill in the art would have recognized that the optical disc of Yagi was equivalent and an obvious alternative as far as storing data and control

information to the storage means of system of Aoki. Use of optical disc for storage did not change the application of audio data and control information data.

NOTE: It should also be pointed out that using different storage elements is not patentable as such.

24. As to claim 8, Aoki discloses:

the recording modes include monaural audio, multi-channel audio and multiplexed [two-language/multi-language] audio [col. 4, lines 35-43 and col. 7, lines 8-16].

25. As to claim 9, Aoki discloses:

the audio stream contains multiplexed audio data [col. 4, lines 35-43 and col. 7, lines 8-16].

26. As to claim 10, Aoki discloses:

the multiplexed audio data consists of a plurality of audio channels and contains multiple language data in different audio channels [col. 4, lines 35-43 and col. 7, lines 8-16].

27. As to claim 11, Aoki discloses:

the audio stream further contains multi-channel audio data, and wherein the application information indicates that the audio stream contains the audio data with different recording modes [col. 4, lines 35-43 and col. 7, lines 8-16]

28. As to claim 12, Aoki discloses:

the control information further includes number information indicating a number of audio channels in the audio stream [col. 5, lines 56 to col 6, line 3]. NOTE: Since each audio channel is identified individually, and where data is recorded, information indicating number of channels for that mode is inherently present. For example stereo 2-channels would have two channels and stereo 4-channels would have four channels.

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This information is inherently needed to assign the channels and wires necessary to transmit and record the information.

29. As to claim 13, Aoki discloses:

the control information further includes number information specifying one of the recording modes [col. 5, lines 11-40].

30. As to claim 14, Aoki discloses:

the control information further includes rate information [sampling frequency] indicating a bit rate of the audio data [col. 4, lines 44-61 and col. 5, lines 56-63].

31. As to claim 15, Aoki discloses:

a recording device [fig. 1A, unit 16; Recording Amplifier] which records audio data on a first recording area [fig. 2, Audio signal area A & B] of the recording medium as an audio stream [col. 4, lines 18-34 and col. 15, lines 26-30]; and

a generating device [fig. 1A, unit 10] which generates control information including application information indicating whether or not the audio stream contains audio data with different recording modes [col. 3, lines 34-53; col. 4, lines 35-61 and col. 7, lines 8-16];

wherein the recording device [fig. 1A, unit 10] records the control information [signals b1-b6] on a second recording area [AUDIO MODE CONTROL SIGNAL area] located in different position from the first recording area [col. 6, lines 7-17] of the recording medium [col. 4, lines 35-61 and col. 7, lines 6-16].

NOTE: First recording area and second recording area are located in completely different area. Also an "area discrimination bit" [see figs. 3B and 3C] is used by Aoki to emphasize this point.

32. As to claim 15, Aoki discloses:

a recording device [fig.1A, unit 16; Recording Amplifier] which records audio data on a first recording area [fig. 2, Audio signal area A & B] of the recording medium as an audio stream [col. 4, lines 18-34 and col. 15, lines 26-30]; and

a generating device [fig. 1A, unit 10] which generates control information including application information indicating whether or not the audio stream contains audio data with different recording modes [col. 3, lines 34-53; col. 4, lines 35-61 and col. 7, lines 8-16];

wherein the recording device [fig. 1A, unit 10] records the control information [signals b1-b6] on a second recording area [AUDIO MODE CONTROL SIGNAL area] located in different position from the first recording area [col. 6, lines 7-17] of the recording medium [col. 4, lines 35-61 and col. 7, lines 6-16].

NOTE: First recording area and second recording area are located in completely different area. Also an "area discrimination bit" [see figs. 3B and 3C] is used by Aoki to emphasize this point.

33. As to claims 16-22, they are claims corresponding to claims 8-14 respectively and they are therefore rejected for the same reasons set forth in the rejection of claims 8-14 respectively, supra.

34. As to claim 31, Aoki discloses:

recording audio data on a first recording area of the recording medium as an audio stream [col. 4, lines 18-34];

generating control information [fig. 1A, unit 10] including application information indicating whether or not the audio stream contains audio data intermingled from different recording modes; and

recording the control information on a second recording area [AUDIO MODE CONTROL SIGNAL area] located in different position from the first recording area [col. 6, lines 7-17] of the recording medium [col. 4, lines 35-61 and col. 7, lines 6-16].

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NOTE: Aoki discloses audio data intermingled from different modes [for example monaural, two-language/multi-language, stereo etc.] [see col. 4, lines 39-41]. Also Aoki clearly discloses audio data which is intermingled from different recording modes. Aoki uses words “**a combination thereof**” to describe that not only he has different audio modes but also combination or intermingled mode of these data. Also all this information about encoded intermingled data is supplied to signal input 6, and this is called “audio mode control signal”. Audio mode information contains the **audio mode identification information** [see col. 3, lines 45-46].

First recording area and second recording area are located in completely different area. Also an “area discrimination bit” [see figs. 3B and 3C] is used by Aoki to emphasis this point.

35. As to claims 32-38, they are method claims corresponding to claims 8-14 respectively and they are therefore rejected for the similar reasons set forth in the rejection of claims 8-14 respectively, supra.

Claim Rejections - 35 U.S.C. § 103

36. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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37. Claims 47-61 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Aoki and Yagi as applied claims 23-30, and 39-46 above and further in view of Oguro, US. patent 6,097,558 (hereafter Oguro).

As to claim 47, Aoki & Yagi discloses the invention as claimed [see Figs. 1-9 especially 1A, 1B, 3B and 4B] including a first recording area, a second recording area in different position from the first recording area, comprising:

a first recording area [fig. 2, Audio signal area A & B] on which an audio stream containing audio data is recorded [col. 4, lines 5-10 and col. 15, lines 26-30]; and

a second recording area [fig. 3B & 3C, AUDIO MODE CONTROL SIGNAL area] on which control information [signals b1-b6] is recorded [col. 6, lines 4-44 and col. 15, lines 26-30], the second recording area [AUDIO MODE CONTROL SIGNAL area] located in different position from the first recording area [col. 6, lines 7-17].

Aoki discloses all of above elements including mixed mode data [indicated by "a combination thereof" at col. 4, lines 41]. Since Aoki has mixed mode data, Aoki also inherently has to separate this data to be of any use, therefore by definition Aoki also discloses control information regarding this mixed mode. Aoki does not specifically disclose well know details such as, how he is separating the data and if he has a mix mode flag to do this.

However, it is well known in the art the use of mixed mode signals and devices [such as mixer chips] and different methods for mixing and separating these audio modes so they can be used in useful manner. Also Oguro clearly discloses:

a bit [flag] indicating a mix mode [col. 7, lines 29-37 and fig. 8A]. Both Aoki and Oguro are interested in improving the storage of the audio signal, both shows different audio modes and both shows different channels for recording and bits indicating different channels.

Therefore, it would have been obvious to provide the system of Aoki & Yagi with data arrangement of a header and associated details such as mix mode flag [MIX] as taught by Oguro. The application or use of the mixed mode flag as taught by Oguro would have been obvious, because the mixed mode flag [or MIX bit] performs the same

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function in the same way as the decoder [or audio mode processing circuit details] of Aoki & Yagi's system, and is an equivalent element. One of ordinary skill in the art would have recognized that the MIX bit of Oguro was equivalent and an obvious alternative to the means for decoding the mixed mode [unit 10, fig. 1A] of system of Aoki & Yagi

NOTE: First recording area and second recording area are located in completely different area. Also an "area discrimination bit" [see figs. 3B and 3C] is used by Aoki to emphasize this point.

38. As to claim 48, Aoki discloses:

the control information also includes channel number data [record channel information 36] [col. 4, lines 35-43 and col. 7, lines 8-16].

39. As to claim 49, Aoki discloses:

the channel number data indicates multiplexed audio data, multi-channel audio data, and monaural audio data [col. 4, lines 35-43 and col. 7, lines 8-16].

40. As to claim 50, Aoki discloses:

a recording device which records audio data on a first recording area [fig. 2, Audio signal area A & B] of the recording medium as an audio stream [col. 4, lines 5-10 and col. 15, lines 26-30]; and

the recording device records the control information on a second recording area [fig. 3B & 3C, AUDIO MODE CONTROL SIGNAL area], located in a different position from the first recording area, of the recording medium [col. 6, lines 7-17]; and

a generating device [fig. 1A, unit 10] which generates control information

Aoki discloses all of above elements including mixed mode data [indicated by "a combination thereof" at col. 4, line 41] and control information generator [col. 4, lines 35-43]. Since Aoki has mixed mode data, Aoki also inherently has a method to separate this data to be of any use, therefore by definition Aoki also discloses control information

regarding this mixed mode. Aoki does not specifically disclose well know details such as, how he is separating the data and if he has a mix mode flag to do this.

However, it is well known in the art the use of mixed mode signals and devices [such as mixer chips] and different methods for mixing and separating these audio modes so they can be used in useful manner. Also Oguro clearly discloses:

a bit [flag] indicating a mix mode [col. 7, lines 29-37 and fig. 8A]. Both Aoki and Oguro are interested in improving the storage of the audio signal, both shows different audio modes and both shows different channels for recording and bits indicating different channels.

Therefore, it would have been obvious to provide the system of Aoki with data arrangement of a header and associated details such as mix mode flag [MIX] as taught by Oguro. The application or use of the mixed mode flag as taught by Oguro would have been obvious, because the mixed mode flag [or MIX bit] performs the same function in the same way as the decoder [or audio mode processing circuit details] of Aoki's system, and is an equivalent element. One of ordinary skill in the art would have recognized that the MIX bit of Oguro was equivalent and an obvious alternative to the means for decoding the mixed mode [unit 10, fig. 1A] of system of Aoki.

NOTE: First recording area and second recording area are located in completely different area. Also an "area discrimination bit" [see figs. 3B and 3C] is used by Aoki to emphasis this point.

41. As to claims 51-52, they are claims corresponding to claims 48-49 respectively and they are therefore rejected for the same reasons set forth in the rejection of claims 48-49 respectively, supra.

42. As to claim 53, Aoki discloses:

a first recording area [fig. 2, AUDIO SIGNAL AREA A or B] on which an audio stream containing the audio data is recorded [col. 5, lines 5-10], and

a second recording area [fig. 2, SUBCODE AREA A or B] on which control information [signals b1-b6] is recorded [col. 15, lines 26-30],

the second recording area [AUDIO MODE CONTROL SIGNAL area] located in different position from the first recording area [col. 6, lines 7-17],

a reading device [fig. 1B, unit 20] which reads the control information from the second recording area of recording medium [col. 5, lines 11-40], and

a controller [fig. 1B, unit 28] which controls the reproduction of the audio data recorded on the first recording area of the medium based on the control information [col. 5, lines 11-40].

Aoki discloses all of above elements including mixed mode data [indicated by "a combination thereof" at col. 4, lines 41]. Since Aoki has mixed mode data, Aoki also inherently has to separate this data to be of any use, therefore by definition Aoki also discloses control information regarding this mixed mode. Aoki does not specifically disclose well know details such as, how he is separating the data and if he has a mix mode flag to do this.

However, it is well known in the art the use of mixed mode signals and devices [such as mixer chips] and different methods for mixing and separating these audio modes so they can be used in useful manner. Also Oguro clearly discloses:

a bit [flag] indicating a mix mode [col. 7, lines 29-37 and fig. 8A]. Both Aoki and Oguro are interested in improving the storage of the audio signal, both shows different audio modes and both shows different channels for recording and bits indicating different channels.

Therefore, it would have been obvious to provide the system of Aoki with data arrangement of a header and associated details such as mix mode flag [MIX] as taught by Oguro. The application or use of the mixed mode flag as taught by Oguro would have been obvious, because the mixed mode flag [or MIX bit] performs the same function in the same way as the decoder [or audio mode processing circuit details] of Aoki's system, and is an equivalent element. One of ordinary skill in the art would have recognized that the MIX bit of Oguro was equivalent and an obvious alternative to the means for decoding the mixed mode [unit 10, fig. 1A] of system of Aoki.

NOTE: First recording area and second recording area are located in completely different area. Also an "area discrimination bit" [see figs. 3B and 3C] is used by Aoki to emphasize this point.

43. As to claims 54-55, they are claims corresponding to claims 48-49 respectively and they are therefore rejected for the same reasons set forth in the rejection of claims 48-49 respectively, supra.
44. As to claim 56, it is drawn to a method claim corresponding to the apparatus claim of claim 47, is rejected for similar reasons set forth in the rejection of claim 47, supra.
45. As to claims 57-58, they are method claims corresponding to claims 48-49 respectively and they are therefore rejected for the similar reasons set forth in the rejection of claims 48-49 respectively, supra.
46. As to claim 59, it is drawn to a method claim corresponding to the apparatus claim of claim 53, is rejected for similar reasons set forth in the rejection of claim 53, supra.
47. As to claims 60-61, they are method claims corresponding to claims 48-49 respectively and they are therefore rejected for the similar reasons set forth in the rejection of claims 48-49 respectively, supra.
48. As to new claims 62-71, they are rejected under 35 U.S.C. § 103(a) as being unpatentable over Aoki, Yagi and Oguro as applied claims 7-61 above.

As to claims 62-71 Oguro discloses:

Management data recording zone [control area] is located inward of the object data recording zone [audio data] [col. 10, line 55 to col. 11, line 35].

NOTE: Since there are several zones [1 to 23] disclosed by Oguro; and all zones has control area and audio area. Inherently some control area is located inward and some is located outward from the one of the area such as say zone 4. Zone 3 will be inward and zone 5 will be outward.

49. Aoki, Yagi and Oguro were cited as prior art reference in paper no. 9, mailed 11-20-02.

50. Applicant's arguments with respect to claims 7-71 have been considered but are moot in view of the new grounds of rejection.

51. A search based on the best understanding of the claims has been made to find the most pertinent art, but no statement about invention will be appropriate at this time regarding the allowableness of claims zx and no art rejection will be made in this office action regarding the claims zx, due to the speculation required to interpret the claims because of their indefiniteness under 35 U.S.C. 112, 1st and 2nd paragraphs as noted above (see In re Steele, 134 USPQ 292).

52. Applicant's amendment necessitated the new grounds of rejection presented in this office action. Accordingly, **THIS ACTION IS MADE FINAL**. See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Contact Information

53. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam R. Patel whose telephone number is (703) 308-

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7940. The examiner can normally be reached on Monday through Thursday from 7:30 to 6.

The appropriate fax number for the organization (Group 2650) where this application or proceeding is assigned is (703) 872-9314.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Doris To can be reached on (703) 305-4827.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 305-4700 or the group Customer Service section whose telephone number is (703) 306-0377.

Gautam R. Patel
Primary Examiner
Group Art Unit 2655



GAUTAM R. PATEL
PRIMARY EXAMINER

August 12, 2004